DOCUMENT RESUME

ED 236 463 CG 017 013

AUTHOR Katzman, Melanie A.; Wolchik, Sharlene A.
TITLE Bulimics with and without Prior Anorexia Nervosa: A Comparison of Personality Characteristics.
PUB DATE 29 Apr 83
NOTE 17p.; Paper presented at the Annual Convention of the Rocky Mountain Psychological Association (Snowbird, UT, April 26-30, 1983). Best copy available.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Anorexia Nervosa; Behavior Patterns; Body Image; College Students; Depression (Psychology); Eating Habits; *Females; Higher Education; Personality Problems; *Personality Traits; *Psychological Patterns; Self Concept; Self Esteem
IDENTIFIERS Binge Eating; *Bulimia

ABSTRACT

A controversial issue in the literature on eating disorders is whether or not bulimia is a disorder distinct from anorexia nervosa. To compare the personality and behavioral characteristics of bulimic women with and without prior anorexia nervosa, 14 female college students (mean age 19.6 years, 86 percent white) were divided into two groups according to operationalized Diagnostic and Statistical Manual (DSM III) criteria for bulimia (N=5) and bulimia-anorexia nervosa (N=9). Subsequently they were administered a battery of questionnaires assessing personality traits and eating disorders including the Herman and Polivy Restraint Scale Revised; Hawkins and Clement Binge Eating Scale; Demand for Approval and the High Self-Expectations subscales of the Jones' Survey of Beliefs and Feelings; Kurtz Body Attitude Scale; Levenson and Gottman Dating and Assertion Questionnaire; Rosenberg Self-Esteem Index; Spence and Helmreich Personality Attributes; and the Beck Depression Inventory. An analysis of the results showed that bulimic women with a prior history of anorexia were more depressed than nonanorexic bulimic women. Bulimic women with a history of anorexia also reported previous treatment for weight related difficulties and higher family incomes than nonanorexic bulimic women. Personality traits for both groups were similar, i.e., low self esteem, high need for approval, high self expectations or perfectionistic strivings, and a poor body image. All women recognized their eating habits as disruptive and expressed an interest in receiving treatment. (BL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

BEST COPY AVAILABLE

ED236463

Bulimics with and without prior anorexia nervosa: A comparison of personality characteristics

Melanie A. Katzman, M.A.
Sharlene A. Wolchik, Ph.D.
Arizona State University
Tempe, AZ 85287

Paper presented to the Rocky Mountain Psychological Association, April 29, 1983.

CG 017013

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Melanie A. Katzman
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Introduction

There has been a marked increase over the past several years in professional and lay attention to the varied manifestations of eating disorders. Until quite recently, bulimia was considered a rare disorder (Bruch, 1974). However, recent estimates suggest an increase in its frequency (Stangler and Printz, 1980). A recent study we conducted indicated that 3.9% of a non-clinical college sample of women were bulimic using an operationalized form of the DSM III diagnostic criteria (Katzman, Wolchik, and Braver, Note 1). Despite a growing awareness of the severity of this disorder, relatively little research has been conducted.

One controversial issue in the available literature concerns whether bulimia is a disorder distinct from anorexia nervosa. While some researchers view bulimia and anorexia as separate disorders, others consider the disorders to be highly related variants of each other. According to DSM III (1980) the diagnosis of bulimia is based on the following criteria: The maintenance of a non-anorexic minimal weight, recurrent episodes of binge eating of large amounts of food in a discrete period of time, and the occurrence of depression and purging and/or restrictive dieting after the binge. In contrast, the essential DSM III criteria for anorexia nervosa include an intense fear of becoming obese, a disturbed body image, a weight loss of at least 25% of original weight and a refusal to maintain body weight over a minimal normal weight for age and height (DSM III 1980).

Although the DSM III categoriezed bulimia and anorexia as two distinct eating disorders, the relationship between the two syndromes remains unclear. For example, Russell (1979) believes that women with anorexia nervosa and women who binge and purge share a similar psychopathology, and Pyle et al. 1981 view bulimia and anorexia nervosa as variants in a

spectrum of eating disorders.

Several kinds of evidence have been used to support the notion that anorexia and bulimia are more similar than different. For example, a sizeable subgroup of anorexics maintain their subnormal body weight by binging and purging (e.g., Beaumont et al., 1976). Also, follow up investigations of treated anorexics indicate that a substantial number developed bulimic behaviors after treatment (HSU, 1980). Finally, several researchers have reported an association between bulimics and true or cryptic anorexia nervosa. For example, 85% of the bulimic subjects in the study by Russell (1979), 47% of the subjects in the study by Pyle et al. (1981) and 35% of the subjects in the study by Carroll and Leon (Note 2) had histories of extreme weight loss.

The purpose of our investigation was to compare the personality and behavioral characteristics that coexist with bulimia in women with and without a history of anorexia nervosa. The results of this comparison will help to elucidate the association between bulimia and anorexia and will have implications for researchers and clinicians. By studying the personality and behavioral characteristics of women with eating disorders, we may begin to identify the psychological and behavioral patterns that may predispose a woman to develop and/or maintain abnormal eating habits. Also, if these personality and behavioral characteristics differ between women who have been anorexic and are currently bulimic and women who are bulimic but have not experienced anorexia nervosa, then treatment strategies for these two groups of bulimics will need to differ.

METHOD

Subjects

Fourteen female undergraduate students participated in this study, five who fulfilled an operationalized definition of the DSM III criteria

for bulimia and reported a history of anorexia nervosa, and nine women who fulfilled these criteria but had no history of anorexia. All subjects were enrolled in the Arizona State University introductory psychology course which included a requirement for research participation. None of the women were currently receiving psychiatric treatment. The mean age of subjects across all three groups was 19.6 years and 86% of the women were white.

Selection was based on responses to two questions which were part of a general questionnaire that was administered to all students in introductory psychology. The questions were: "Do you binge eat?" and "Do you frequently consume large amounts of food in short periods of time other than meals?" All the women who responded positively to both were contacted by telephone and asked to participate in a study of eating habits of college women. During the experimental session subjects completed a questionnaire which contained the operationalized diagnostic criteria for bulimia. On the basis of responses to this questionnaire, two experimental groups were formed. Women who fulfilled all of the operationalized diagnostic criteria for bulimia, but had no history of anorexia, were classified as bulimic. Those women who fulfilled all of the operationalized criteria for bulimia and who had a history of anorexia were classified as Bulimic-Anorexics (BULAN).

Measures and Instruments

An operationalized form of the DSM III diagnostic criteria for bulimia was developed for this study. The requirements for number of calories per binge and frequency of binges was chosen to reflect the lower end of the ranges reported in previous studies of bulimics (Mitchell et al., 1981; Pyle et al., 1981). The requirement of at least two attempts to lose weight in the past month was based on the lowest monthly frequency of purging as reported by Pyle et al. (1981). The operationalized criteria are presented in Table 1.

The Herman and Polivy Restraint Scale Revised (1978) was employed as a measure of dieting concerns and eating habits. Test-retest reliability over a one-week period for the original scale is .93 (Kickham & Gayton, 1977). Polivy, Herman and Warsh (1978) reported that the scale successfully differentiates obese subjects and normal weight dieters from non-dieters.

The Beck Depression Inventory (BDI; Beck, Ward, Mendolson, Mock, & Erbaugh, 1961) was used as an index of depression level. Beck (1967) reported a split half reliability of .86. According to Beck (1967) test-retest reliability is not an appropriate appraisal of this inventory. The validity of this measure is supported by a number of studies which found that clinical ratings of patients seen for depression paralleled patients' scores on the BDI (Beck, 1967).

Social competence in dating and assertion situations was assessed by the Levenson and Gottman Dating and Assertion Questionnaire (1978). Levenson and Gottman (1978) reported test-retest reliability of .71 for a two-week interval and .62 for a six-week interval on the dating scale. Reliabilities for the assertion scale were .71 for a 2-week interval and .70 for a 6-week interval. Levenson and Gottman (1978) demonstrated that clients referred to a clinic for problems in dating and assertion scored significantly lower than a normal comparison group on both the dating and assertion subscales.

The Hawkins and Clement Binge Eating Scale (1980) was administered as a self-report measure of behavioral and attitudinal parameters of binge eating. Hawkins and Clement (1980) reported a 1 month test-retest reliability of .88. Investigating the validity of this scale, Hawkins and Clement (1980) reported that women being treated for binge eating problems scored higher on the scale than a college classroom sample.

The Rosenberg Self-Esteem Index (1979) was employed as a measure of self-

concept. Test-retest reliability over a 2-week period is .85 as reported by Silber and Tippett (1965). Silber and Tippett (1965) reported correlations of r = .56 between the Rosenberg Self-Esteem Index and psychiatrist's ratings of self-esteem, and r = .83 between the Rosenberg Self-Esteem Index and the Heath Self-Image Questionnaire.

High self-expectations and extreme demands for approval were assessed using the High Self-Expectations and the Demand for Approval subscales of the Jones' Survey of Beliefs and Feelings (1968). Jones (Note 3) reported a test-retest reliability of .83 for the Demand for Approval subscale and .87 for the High Self-Expectations subscale over a 1-day period.

The Kurtz Body Attitude Scale-Evaluation Dimension subscale (1969) was used to assess opinions about one's appearance. Kurtz (1970) reported a generalizability coefficient of .95 as an index of reliability. Kurtz (1969) reported that individual differences in global body attitude scores corresponded to variations in body size and body build in a college population. Women with smaller body builds evaluated their bodies more positively than larger women.

The short form of the Personality Attributes Questionnaire (Spence, Helmreich, & Stapp, 1974) was used to assess the degree of sex typing or androgeny. Scores on scales measuring female valued characteristics and male valued characteristics are used to classify subjects as masculine, feminine, androgenous or undifferentiated. Spence, Helmreich, and Stapp (1974) reported test-retest reliability of .91 over a 13-week period. Spence and Helmreich (1978) reported that mean scores of male and female students differed significantly on the Personality Attributes Questionnaire with high scores in the expected direction according to sex.

A general questionnaire was developed to assess personal and familial weight history, history of treatment for weight problems, alcohol and ciga-

rette use, and attitudes toward and history of binge eating. This questionnaire consisted of both multiple choice and open-ended questions.

Procedure

Questionnaires were administered to subjects in small groups by a female experimenter. The assessment battery consisted of the aforementioned measures presented in the following order: the operationalized criteria questionnaire, the general questionnaire, the Herman and Polivy Restraint Scale Revised (1978), the Hawkins and Clement Binge Scale (1980), the Demand for Approval and the High Self-Expectations subscales of the Jones Survey of Beliefs and Feelings (1968), the Kurtz Body Attitude Scale-Evaluation Dimension subscale (1969), the Levenson and Gottman Dating and Assertion Questionnaire (1978), the Rosenberg Self-Esteem Index (1979), the short form of the Spence and Helmreich Personality Attributes Questionnaire (1974), and the Beck Depression Inventory (Beck et al., 1961). After completing the battery, all subjects were weighed and measured.

RESULTS

Data Analysis

All comparisons using measures of personality and behavioral characteristics which involved multiple independent measures were analyzed using a multivariate analysis of variance (MANOVA). This statistical procedure was chosen because of its ability to control error rates when a number of dependent measures are analyzed simultaneously.

All categorical data were analyzed using the Chi Square technique. These analyses were performed using eating categories as the independent measure and categorical data collected on the general questionnaire and through self-monitoring as dependent measures. For general questionnaire data which involved comparisons between the two groups on one dependent measure, *t* tests were em-

ployed.

Standardized Measures of Personality and Behavior

In order to assess differences in personality and behavioral characteristics between women with a history of anorexia nervosa and women without this history across groups, a one-way MANOVA using history of anorexia nervosa as the independent variable and scores on the aforementioned scales as the dependent variables was conducted. This analysis revealed no significant differences, $F(9,4) = 2.47$, $p < .05$. However, the limited sample size involved in this analysis may have prevented significance, thus the one significant univariate analysis will be reported for suggestive theoretical purposes. Bulimic women with a history of anorexia nervosa were more depressed than bulimic women who did not have a history of anorexia nervosa, $F(1,12) = 8.29$, $p < .01$. The means and standard deviations of these measures are reported in Table 2.

General Questionnaire Data

The chi square analysis comparing bulimics with and without a history of anorexia on previous treatment for an eating problem revealed significant differences, X^2 (1) = 11.51, $p < .01$. While 100% of the prior anorexics previously received treatment, 55% of the bulimics without a history of anorexia reported prior treatment for an eating problem. The chi square analysis comparing groups on family income revealed significant differences, X^2 (3) = 8.1, $p < .05$. The majority of prior anorexics reported a family income of over $25,000. The majority of bulimics reported a family income between $17-24,000.

The chi square analysis comparing women from these three groups on the following information were all non-significant. Neither mother's weight X^2 (6) = 8.77, nor father's weight X^2 (6) = 1.47 differed among the groups. The parents of the majority of these women were of average weight. No differences were found across groups on subjects' use of alcohol, X^2 (1) = .56. The major-

ity of women consumed one to three drinks a week. Use of cigarettes did not differ either, X^2 (1) = .56. The majority of women did not smoke. The chi square analysis comparing groups on whether they purged following a binge also revealed no differences, X^2 (1) = 1.41, $p > .05$. The majority of women purged after binging.

Two t-tests were conducted to compare patterns of binge eating between women in the two groups. There were no significant differences between groups on age at which a subject began to binge (t (13) = .49, $p > .05$) and age at which a subject began to purge (t (10) = .37, $p > .05$). Also, the majority of women in both groups viewed their eating habits as disruptive (as measured on a 7 pt. scale) and nearly all of the women expressed an interest in receiving treatment for their eating disorders.

Discussion

The present study compared personality and behavioral characteristics of women who fulfilled an operationalized definition of the DSM III criteria for bulimia and reported these criteria but had no history of anorexia. The results indicate that bulimics with a history of anorexia were significantly more depressed than bulimics without a history of anorexia but did not differ on the other personality measures. Results of the questionnaire data indicated two significant differences between the groups. Significantly more bulimics with a history of anorexia reported previous treatment for weight related difficulties and higher family incomes than bulimics without this history.

Differences did not occur between the groups on purging after binge eating, age at which purging began, nor age of onset of binge eating. The majority of women from both groups reported drinking alcohol 1-3 times a week, did not smoke cigarettes and reported that their mothers and fathers were of average weight. Also, the majority of women in both groups viewed their eating

habits as disruptive and nearly all the women expressed an interest in receiving treatment. These results suggest that bulimics with and without a history of anorexia are more alike than different. Perhaps the most salient feeling is the greater depression among bulimics with a history of anorexia. Mean scores on the Beck Depression Inventory for women from this group were reflective of severe depression (Beck et al., 1961). In contrast, bulimics without a history of anorexia obtained scores on the Beck Depression Inventory which were reflective of moderate depression. While these results suggest that therapists need to be attentive to depression in both bulimics with and without a history of anorexia nervosa, treatment for bulimics with prior anorexia may need to focus more heavily on reducing the severe depression.

Although the scores on standardized measures of personality did not differ between the groups, women from both groups were characterized by low self esteem, a high need for approval, high self expectations or perfectionistic strivings and a poor body image. These findings suggest that treatment for bulimics from both groups needs to address personality variables as well as the dysfunctional pattern of eating. The finding that 100% of the bulimics with a history of anorexia and over half of the bulimics without this history previously received treatment for disturbed eating suggests that women predisposed to an eating disorder may exhibit different eating problems at various times. Longitudinal study of women with various eating disorders would help answer this question. None of the women in this study were currently in treatment, yet the majority were disturbed by their eating habits and reported an interest in treatment. This suggests that outreach programs for the college women may be helpful in providing services to those who may want treatment but do not have the information on how to receive help. Unfortunately at present our knowledge on effective treatment is limited and attempts at

prevention may be premature. However, this information suggests that highly disturbing eating habits exist even among non-clinical samples and that the study of such problems requires further attention by clinicians. That many women previously in treatment are now requesting additional aid suggests a need for more extensive followup by clinicians.

There are several limitations to the current study. First, the current data were collected from a subclinical sample of bulimics within a university setting. However, bulimia is often studied within a medical setting (e.g., Pyle et al., 1981). The degree to which these results are generalizable to a more severe clinical sample is unclear. Second, the personality and behavioral characteristics reported for bulimics reflect correlational associations. The causal role played by personality or eating behaviors in the development of bulimia cannot be determined by these data.

While these results suggest that bulimics with and without a history of anorexia are similar in many ways, future research is needed to clarify the relationship between anorexia and bulimia. Also, research is needed to help identify factors which may lead to the development of eating disorders such as bulimia after successful treatment of anorexia.

REFERENCE NOTES

1. Katzman, M., Wolchik, S., Braver, S. The Prevalence of Frequent Binge Eating and Bulimia in a Non-clinical College Sample. Manuscript submitted for publication February 4, 1983.

2. Carroll, K., & Leon, G. R. The bulimia-vomiting disorder within a generalized substance abuse pattern. Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy, Toronto, November 1981.

3. Jones, R. G. Personal communication, June 9, 1982.

REFERENCES

Beaumont, P. J. V., George, G. C. W., & Smart, D. E. "Dieters" and "vomiters and purgers" in anorexia nervosa. Psychological Medicine, 1976, 6, 617-32.

Beck, A. T. Depression: Causes and treatments. Philadelphia: University of Pennsylvania Press, 1967.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. E., & Erbaugh, J. An inventory for measuring depression. Archives of General Psychology, 1961, 4, 561-571.

Bruch, H. Eating disorders. London: Routledge & Kegan, Publishers, 1974.

Diagnostic and Statistical Manual of Mental Disorders (3rd Ed.). Washington, D. C.: American Psychological Association, 1980.

Hawkins, R. C., & Clement, P. F. Development and construct validation of a self-report measure of binge eating tendencies. Addictive Behaviors, 1980, 5, 219-26.

Herman, C. P., & Polivy, J. Anxiety, restraint and eating behavior. Journal of Abnormal Psychology, 1975, 84, 666-72.

Hsu, L. K. G. Outcome of anorexia nervosa. Archives of General Psychiatry, 1980, 37, 1041-1046.

Jones, R. G. A factored measure of Ellis' irrational belief systems. Wichita, Kansas: Test Systems, Inc., 1968.

Kickham, K., & Gayton, W. F. Social desirability and the restraint scale. Psychological Reports, 1977, 40, 550.

Kurtz, R. Sex differences and variations in body attitudes. Journal of Consulting and Clinical Psychology, 1969, 33, 625-29.

Kurtz, R., & Hirt, M. Body attitude and physical health. Journal of Clinical Psychology, 1970 26, 149-51.

Levenson, R. W. & Gottman, J. M. Toward the assessment of social competence. Journal of Consulting and Clinical Psychology, 1978, 46, 453-62.

Metropolitan Life Insurance Company of New York: New weight standards for males and females. Statistical Bulletin, 1959, 40, 2-3.

Mitchell, J. E., Pyle, R. L., & Eckert, E. D. Frequency and duration of binge-eating episodes in patients with bulimia. American Journal of Psychiatry, 1981, 138 (6), 835-36.

Polivy, J., Herman, C. P., & Warsh, S. Internal and external components of emotionality in restrained and unrestrained eaters. Journal of Abnormal Psychology, 1978, 87, 497-504.

Pyle, R. L., Mitchell, J. E., & Eckert, E. D. Bulimia: A report of 34 cases. Journal of Clinical Psychiatry, 1981, 42 (2), 60-64.

Rosen, J., & Leitenburg, H. Bulimia nervosa: Treatment with exposure and response prevention. Behavior Therapy, 1982, 13, 117-24.

Russell, G. F. M. Bulimia nervosa: An ominous variant of anorexia nervosa. Psychological Medicine, 1979, 9, 429-48.

Silber, E., & Tippett, J. S. Self-esteem: Clinical assessment and measurement validation. Psychology Reports, 19 , 16, 1017-21.

Spence, J. T., & Helmreich, R. Masculinity and femininity: Their psychological dimensions correlates and antecedents. Austin, Texas: University of Texas Press, 1978.

Spence, J. T., Helmreich, R., & Stapp, J. The Personality Attributes Questionnaire: A measure of sex role stereotypes and masculinity and femininity. Journal Supplement Abstract Service Catalog of Selected Documents in Psychology, 1974, 43 (Ms. No. 617).

Stangler, R. S., & Printz, A. M. DSM III: Psychiatric diagnosis in a university population. American Journal of Psychiatry, 1980, 137 (8), 937-40.

Table 1

A. At least eight episodes of binge eating (each binge = 1,200 or more calories) in the last month, each binge lasting less than two hours.

B. At least three of the following:

1. Consumption of high caloric, easily ingested food during a binge.

2. Eating in private during a binge.

3. Termination of such eating episodes by abdominal pain, sleep, social interruption, or self-induced vomiting.

4. Repeated attempts (at least twice in the last month) to lose weight by severely restricted diets, self-induced vomiting, or use of cathartics and/or diuretics.

5. Frequent weight fluctuations greater than ten pounds due to alternating binges and fasts.

C. Awareness that the eating pattern is abnormal and a fear of not being able to stop eating involuntarily.

D. Depressed mood and self-depricating thoughts following eating binges.

E. The bulimic episodes are not due to anorexia nervosa or any known physical disorder. (the diagnosis of anorexia nervosa has not been applied to this individual in the past year).

TABLE 2

Mean and Standard Deviation Scores for Measures of Personality and Behavioral Characteristics for the Comparison of Women With and Without a History of Anorexia Nervosa -- Bulimic Women Only

Measure	Prior Anorexia[a]		No Prior Anorexia[b]	
	M	SD	M	SD
Restraint	26.20	1.78	26.55	3.77
Binge Scale	18.60	3.04	17.22	2.27
High Expectations	38.20	3.11	31.77	6.90
Demand for Approval	36.40	8.01	34.22	8.13
Body Attitudes	122.40	37.50	109.9	27.91
Assertion	24.00	9.79	25.[illegible]	7.14
Dating	24.20	6.76	24.55	7.56
Self-Esteem	32.80	9.88	25.33	3.84
Depression*	35.80	15.07	18.00	8.41

Note. High scores on the Self-Esteem scale represent self-esteem deficits.

[a] $n = 5$

[b] $n = 9$

*$p < .01$